CLAIMS

SUB B'

1/ A very broad band wavelength division multiplexed transmission system with means for compensating energy transfers between channels caused by the Raman effect.

2/ The system of claim 1, characterized by a bandwidth greater than 20 THz.

3/ The system of claim 1, characterized by a bandwidth greater than 30 THz.

~~4/ The system of claim 1, 2, or 3, characterized in that~~ said band extends beyond 1620 nm, preferably beyond 1650 nm, or even more preferably beyond 1670 nm.

Sub A1

5/ The system of any one of claims 1 to 4, characterized in that the compensation means compensate depletion in channels over the beginning of the band.

6/ The system of claim 5, characterized in that the compensation means compensate depletion in the channels at the beginning of the band over a bandwidth lying in the range 13 THz to 21 THz.

Sub A2

~~7/ The system of any one of claims 1 to 6, characterized~~ in that the compensation means compensate enrichment of ~~channels over the end of the band.~~

8/ The system of claim 7, characterized in that the compensation means compensate enrichment of the channels over the end of the band over a bandwidth lying in the range 13 THz to 21 THz.

Sub A3

~~9/ The system of claim 7 or claim 8, characterized in~~ that the compensation means compensate enrichment of the channels over the end of the band by linear losses in the ~~fiber of the transmission system.~~

10/ The system of claim 7, 8, or 9, characterized in that the compensation means comprise means for emitting lower powers over the end of the band.

11/ A very broad band optical amplification system comprising compensation means for compensating energy transfers caused by the Raman effect.

12/ The system of claim 11, characterized by a bandwidth greater than 20 THz.

13/ The system of claim 11, characterized by a bandwidth greater than 30 THz.

14/ The system of claim 11, 12, or 13, characterized in that the compensation means compensate depletion in the channels over the beginning of the band.

15/ The system of claim 14, characterized in that the compensation means compensate depletion in the channels over the beginning of the band over a bandwidth lying in the range 13 THz to 21 THz.

16/ The system of claim 14 or claim 15, characterized in that it comprises distributed amplification means over the beginning of the band.

17/ The system of claim 16, characterized in that the distributed amplification means comprise Raman amplification means.

18/ The system of claim 16 or claim 17, characterized in that the distributed amplification means comprise rare earth amplification means.

~~19/ The system of any one of claims 11 to 18, characterized in that the compensation means compensate enrichment of the channels over the end of the band.~~

20/ The system of claim 19, characterized in that the compensation means compensate enrichment of the channels over the end of the band over a bandwidth lying in the range 13 THz to 21 THz.